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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,659	02/02/2007	Anthony McCormack	3700.P0412US	4367

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EXAMINER	
FELTON, MICHAEL J	

ART UNIT	PAPER NUMBER
1791	

MAIL DATE	DELIVERY MODE
12/02/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,659	MCCORMACK ET AL.	
	Examiner	Art Unit	
	MICHAEL J. FELTON	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 July 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,27-32,34 and 37-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,27-32,34 and 37-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date ____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/27/2009 have been fully considered but they are not persuasive.

2. The applicant argues that Keith et al. do not disclose activated carbons with high activity. The examiner disagrees. Keith et al. expressly discloses a minimum surface are but does not indicate a maximum surface area and also does not indicate the activity of the carbon. Although the applicant extrapolates activity data based on the examples of Keith II et al., the examples do not limit the disclosure of Keith II et al. Furthermore, the applicant appears to be arguing the reference separately, as the examiner has admitted on the record that Keith II et al. do not disclose the activity claimed.

3. The applicant calculates a carbon tetrachloride activity based on a manufacturers specification (see remarks page 12). This evidence has not been entered into the record and cannot be relied upon.

4. The applicant argues that because the combination of references does not teach 90% CTC activity or higher, that it cannot meet the claim limitations. The examiner disagrees. Crooks et al. clearly teach CTC activities between 60 and 150 are desired. Because this range overlaps with the range being claimed by the applicant, it is obvious to one of ordinary skill that following the teachings of Crooks et al. would lead one to use activated carbons with activities between 60% and 150%, including carbons in the

range of 90-150%. Furthermore, the starting point of 90% CTC activity appears to lack criticality, as other claims merely claim slightly higher activities. There appears to be no evidence to indicate that 90% is particularly effective.

5. The applicant argues that because Crooks et al. disclose examples using 85% CTC activity carbon, that this limits the enablement of Crooks et al. The examiner disagrees. Crooks et al. explicitly state activities between 60 and 150 are desired and the prior art is enabled for all it discloses.

6. In response to applicant's argument that Frund is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Frund concerns the use of impregnated activated carbon to adsorb or treat gasses containing harmful chemicals, the same problem as the prior art of reference in the cigarette filter art. Regardless of the differences pointed out between the air filter/gas mask art and cigarette filter art, one of ordinary skill would be aware of the significant overlap in the problems faced and the materials and techniques used in both of these fields.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims **1, 27-32, 34, and 37-45** are rejected under 35 U.S.C. 103(a) as being unpatentable over Keith II et al. (US 3,460,543) in view of Crooks et al. (US 20050066980) and Frund (US 5,714,126).

10. Regarding claims **1, 27-30, 32, 34, 37, 38, 39, 42, and 43**, Keith II et al. disclose a cigarette with a cigarette filter containing 100-120 mg of an activated carbon absorbent with a particle size of around 50 mesh (0.297 mm; col. 6, 55-62) that is impregnated with 1-13% copper and 1-13% molybdenum (col. 2, 40-55; col. 4, 1-50) or other metals.

11. Keith II et al. do not disclose carbon tetrachloride activity of 90% or greater. However, Crooks et al. disclose a cigarette filter that includes activated carbon that is impregnated with metals and the activated carbon has a carbon tetrachloride activity of 60-150 (claim 16). In addition, Frund discloses using activated carbon with a carbon tetrachloride activity of at least 95 (col. 2, line 6).

12. It would have been obvious to one of ordinary skill in the art at the time of invention to use activated carbon with higher carbon tetrachloride activity (as taught by Crooks et al. or Frund) with the filter disclosed by Keith II et al. because the references are analogous art and teach using impregnated activated carbon in gas filters to remove harmful substances. In addition, one of ordinary skill would understand that activated carbon with a higher carbon tetrachloride activity would be able to absorb more unwanted compounds from smoke than activated carbon with a lower carbon tetrachloride activity.

13. Regarding claims **31, 44, and 45,** Keith II et al. do not disclose the claimed copper to molybdenum ratios (1.3 to 1 or 4 to 1) but do disclose amount of copper from 1-13 % and amounts of molybdenum from 1-13 % (col. 4, 1-11).

14. It would have been obvious to one of ordinary skill in the art at the time of invention to vary the amounts of the copper and molybdenum within the ranges disclosed by Keith II et al. in order to optimize the performance of the filter because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA).

15. Regarding claim **40,** Keith II et al. disclose that the adsorbent can also remove hydrogen sulfide (col. 3, 67-73).

16. Regarding claim **41,** Keith II et al. disclose that the filter is added to a cigarette with a wrapper and tobacco rod (see example 3).

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL J. FELTON whose telephone number is (571)272-4805. The examiner can normally be reached on Monday to Friday, 7:30 AM to 4:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phillip C. Tucker can be reached on 571-272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J Felton/
Examiner, Art Unit 1791

/Philip C Tucker/

Supervisory Patent Examiner, Art Unit 1791